

department of surgery radical nephrectomy. 42 (10%) had venous invasion and 8 (2.4%) venous involvement extended into the right atrium. The surgical technique we adopted in recent patients is as follows:

1. Time abdominal access subcostal bilateral incision of the peritoneum posterior cranial displacement of the intestine and large retroperitoneal exposure of the great vessels, right renal artery ligation and section space interaortocava; suspension Rumeli tourniquet right renal artery and vein and caudally to the inferior vena cava thrombus cancer; extra fascial dissection of the right kidney.
2. Time Vascular median sternotomy, cannulation of the atrium and right superior vena cava after systemic heparinization, cannulation of right femoral artery and vein, activation of cardiopulmonary bypass with venous assisted (vacuum assisted venous drainage VAVD) to the negative pressure of 20-40 mmHg without circulatory arrest or hypothermia; cavotomia longitudinal under liver and en bloc removal of neoplastic thrombus and right kidney, vascular suturing and decannulation.

Results:

The total time of cardiopulmonary bypass averaged 18 minutes (14-22). There was one intraoperative death likely due to profuse bleeding effects heparinization. In other cases when cavotomia blood loss were minimal and hemodynamic stability was maintained throughout surgery. There were no intraoperative or postoperative complications related to surgical technique. The average hospital stay was 9 days (8-14)

Discussion:

The VAVD ensures almost complete drainage of blood from the hepatic veins and lumbar vertebrae, with minimal bleeding at the time of cavotomia and allowing a thorough dissection of the thrombus. THE CPBP with VAVD avoid possible complications associated with circulatory arrest and deep hypothermia, such as myocardial or cerebral ischemia, depression, immune deficiency. This technique ensures complete control of thrombus and avoids extensive dissection of the vena cava with retroepatica derotation impairment.

Conclusion:

The technique "San Bortolo" has proved a safe and effective solution in the treatment of atrial thrombus originated from neoplastic cord tumor kidney

C86

PROJECT SATURN (SURVEILLANCE AND TREATMENT UPDATE RENAL NEOPLASMS): SIGNIFICANCE OF RETROPERITONEAL LYMPHADENECTOMY IN RENAL TUMOURS => T1bN0M0

A. Simonato, F. Oneto, V. Varca, G. Carmignani (Genova)

Aim of the study:

To analyze, within the SATURN project, the results and the actual significance of Retroperitoneal Lymph Node Dissection (RPLND) in Renal Cell Carcinoma (RCC).

Material and methods:

The SATURN Project database consists of 5463 patients affected by RCC, who were recruited by 16 different centers and submitted to radical or partial nephrectomy between 1994 and 2007. Of them 5001 were cM0 and 3486 cN0cM0. 2664 among these latter patients presented a clinical local stage at least pT1b and they represent the object of this analysis. The pathological

specimens were all routinely and independently analyzed by each centres' pathologists and no central review was performed. Tumour stage was classified according to the AJCC-TNM 2002 classification, histopathology according to the Heidelberg classification and tumour grading according to the Fuhrman's one. Surgical margins status, tumour necrosis and sarcomatoid differentiation were also evaluated. Statistical analysis was performed by means of: the Mann-Whitney U-Test (continuous variables), the Pearson Chi-Square (Categorical Variables), the ANOVA (correlation between continuous and categorical variables), uni- and multi-variable Cox regression analysis, Kaplan-Meier and log-rank test for Cancer Specific Survival that was chosen as the study's end point.

Results:

Of the 2664 patients analyzed, 1352 (50.8) underwent RPLND while 1312 (49.2) didn't undergo the procedure. The decision, whether to perform RPLND or not was significantly influenced by clinical parameters (age and performance status, the latter with inverse correlation) and by clinically recognisable pathological factors (tumour size, that is directly related to pT stage, and tumour necrosis); the parameters that can be identified only at pathological examination (e.g. histotype and grading) didn't influence the decision. Within the patients undergone RPLND the pN+ incidence was significantly related to: uni- or multi-focality of the tumour, histotype (more frequent in papillary, Bellini duct and non classified tumours), sarcomatoid differentiation, nuclear grading, coagulative tumour necrosis, pT stage and tumour' size. CSS was correlated with sex, age, tumour' size, clinical symptoms (but not the performance status), tumour focality, histotype, gradin, tumour necrosis, both the pT and the pN stage and with the performance of RPLND. At multivariable regression analysis the following were recognised as independent variable for CSS: histotype, grading, pT stage, pN stage (pNx however resulted equal to pN0). At Kaplan-Meier analysis survival of RPLND patients was significantly lesser respect to the non RPLND; this however was circumscribed to greater, higher grade pT3a tumours.

Discussion:

A new issue emerging from our series ait ha CSS and performance status don't show any correlation. The lesser survival of RPLND could be related to the fact that the decision of performing the lymphadenectomy is related to the clinical factors and especially to the fact that it is performed more frequently in patients with adverse prognodtic factors (among them the intraoperative detection of grossly involved nodes). In fact in good prognosis patients there is no difference between RPLND and non-RPLND patients.

Conclusion:

RPLND can be recommended only in advanced tumours with a debulking intent.

C87

VALIDATION OF PRIMARY RENAL CANCER CLASSIFICATION, ACCORDING TO THE NEW TNM STAGING SYSTEM

G. Novara, G. Martignoni, M. Brunelli, W. Artibani, G. Martorana, A. Antonelli, A. Simonato, S. Cosciani Cunico, A. Minervini, A. Lapini, S. Serni, L. Nicola, S. Siracusano, A. Volpe, F. Montorsi, V. Ficarra (Padova)

Aim of the study:

A new edition of the TNM was recently released that includes modifications for the staging system of kidney cancers. Specifically, T2 cancers were

subclassified into T2a and T2b (≤ 10 vs > 10 cm), tumors with renal vein involvement or perinephric fat involvement were classified as T3a cancers, and those with adrenal involvement were classified as T4 cancers. The purpose of the study was to validate the recently released edition of the TNM staging system for primary tumor classification in kidney cancer.

Material and methods:

Multicenter retrospective study, including 5339 patients treated in 16 academic Italian centers. Intervention. Radical or partial nephrectomy. Measurements. Univariable and multivariable Cox regression models addressed cancer-specific survival (CSS) after surgery.

Results:

1897 patients (35.5%) were classified as pT1a, 1453 (27%) as pT1b, 437 (8%) as pT2a, 153 (3%) as pT2b, 1059 (20%) as pT3a, 117 (2%) as pT3b, 26 (0.5%) as pT3c, and 197 (4%) as pT4. At a median follow-up of 42 mo, 786 (15%) had died of disease. In univariable analysis, patients with pT2b and pT3a tumors had similar CSS, as did patients with pT3c and pT4 tumors. Moreover, both pT3a and pT3b stages included patients with heterogeneous outcomes. In multivariable analysis, the novel classification of the primary tumor was a powerful independent predictor of CSS (p for trend < 0.0001). However, the substratification of pT1 tumors did not retain an independent predictive role. The major limitations of the study are retrospective design, lack of central pathological review, and low number of patients included in some substages.

Conclusion:

The recently released seventh edition of the primary tumor staging system for kidney tumors was a powerful predictor of CSS. However, some of the substages identified by the classification had overlapping prognosis, and other substages included patients with heterogeneous outcomes. The few modifications included in this edition may have not resolved the most critical issues in the previous version.

MARTEDÌ 19 OTTOBRE
AUDITORIUM DA VINCI

11.30 - 12.30

**GOLDEN COMMUNICATION
RENAL CELL CARCINOMA**

C88

SIMPLE ENUCLEATION VERSUS PARTIAL NEPHRECTOMY IN THE CONSERVATIVE TREATMENT OF RENAL TUMOUR T1NOMO: ANALYSIS OF SATURN STUDY

A. Minervini, S. Serni, L. Masieri, M. Carini, A. Antonelli, C. Simeone, S. Cosciani Cunico, G. Martorana, A. Simonato, N. Longo, F. Rocco, G. Novara, W. Artibani, M. Roscigno, V. Mirone, V. Ficarra (Firenze)

Aim of the study:

The excision of the renal tumor with a substantial margin of healthy parenchyma is considered the gold standard technique for partial nephrectomy (PN). However, simple enucleation showed excellent results in some retrospective series. The purpose of the study was to compare the oncologic outcomes after standard PN and simple enucleation.

Material and methods:

We retrospectively analyzed 1519 patients who underwent standard PN or simple enucleation for localized renal cell carcinoma (RCC) in 16 academic centres between 1997 and 2007. Standard PN was performed in 982 (64.7%) patients, while simple enucleation was performed in the remaining 537 (35.3%) cases. Local recurrence and cancer-specific survival (CSS) were the main outcomes of this study. The Kaplan-Meier method was used to calculate survival functions, and differences were assessed with the log-rank statistic. Univariable and multivariable Cox regression models addressed cancer-specific mortality.

Results:

The median follow-up of the patients undergoing traditional PN and simple enucleation was 51 ± 37.8 mo and 54.4 ± 36 mo, respectively ($p = 0.08$). The 5- and 10-yr CSS estimates were 93.9% and 91.6% after standard PN and 94.3% and 93.2% after simple enucleation (log rank p value 0.94). In multivariable analysis, the adopted technique for nephron-sparing surgery (NSS) was not an independent predictor of CSS (hazard ratio [HR]: 0.7; $p = 0.53$) when adjusted for the effect of the other covariates. The retrospective design and lack of central pathological review were the main limitations of the present study.

Conclusion:

This is the first multicenter, comparative study showing the oncologic equivalence between the standard PN technique and simple enucleation.

C89

RENAL ISCHEMIC DAMAGE DURING LAPAROSCOPIC PARTIAL NEPHRECTOMY: RESULTS OF A PROSPECTIVE STUDY

C. Fiori, F. Porpiglia, R. Bertolo, M. Lucci Chiarissi, M. Manfredi, F. Mele, R. M. Scarpa, V. Podio, T. Angusti (Orbassano)

Aim of the study:

The purpose of this prospective study was to find the best marker to determine